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10/558,430

02/15/2007

Seung-Myun Baek

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EXAMINER

WILLIAMS, CLAYTON R

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/558,430	<b>Applicant(s)</b> BAEK ET AL.	
	<b>Examiner</b> Clayton R. Williams	<b>Art Unit</b> 2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/06/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

1. Claims 1-31 are pending in this application.

### ***Specification***

2. Content and form of specification not in conformance with MPEP requirements.
  - a. Among other objections, "Background Art" section should be titled "Background of the Invention" and a "Brief Summary of the Invention" heading and section are absent in specification. Appropriate correction is required.
  - b. Additionally, the title of the invention is objected to for not being descriptive.

### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of

electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
- (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention

described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

### ***Claim Objections***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 9 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 9, the specification does not sufficiently make clear what is a "duplicate reception flag".

Regarding claim 12, the specification does not make it clear as to what is an "intrinsic number".

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 9, 12 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 9, the claim language does not sufficiently make clear what is a "duplicate reception flag".

Regarding claim 12, the claim language does not make it clear as to what is an "intrinsic number".

Regarding claim 22, the claim language does not make clear the activities claimed regarding receiving a plurality of first type of messages and the steps which follow.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-7, 11-18, 22, 26-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Breh et al., US 20040054747 (hereinafter Breh).

For claim 1, Breh discloses a home network management system residing in a home master device connected to at least one home appliance through a first network and connected to at least one client device through a second network separated from the first network, and being controlled by a central processing means of the home master device (Abstract), the system comprising:

a channel handling module for transmitting/receiving a first type of packet between the home master device and the home appliance ([0062], disclosure of device adapters which translate communication sent between the devices, i.e. appliances, and the pervasive home network appliance, i.e. home master device);

a transmission handling module for performing conversion between the first type of packet from the channel handling module and a first type of message from a service management module, and transmitting the converted packet and message ([0062] and [0061], disclosure of control adapters which translate messages sent between control devices of a user client to a common message protocol understood by the routing engine, which connects the control adapters to the device adapters; in combination, the teachings of [0061] and [0062], disclose a platform for converting messages between formats understood by clients, the server and the controlled appliances);

the service management module for performing conversion between the first type of message from the transmission handling module and a second type of message from a connection handling module, and transmitting the converted messages ([0061] and [0062]); and

the connection handling module for performing conversion between a second type of extension message from the client device and the second type of message from the service management module ([0061]).

For claim 2, Breh discloses the system of claim 1, further comprising a system management module controlled by the central processing means, for performing an initialization operation for communication with the client device and/or the home appliance by using necessary variables of the channel handling module, the transmission handling module and the service management module ([0093]-[0094], disclosure of system initializing newly added devices).



For claim 3, Breh discloses the system of claim 2, comprising one message queue which is a transmission path of the whole packets and/or messages, wherein the message queue receives packets and/or messages having types corresponding to reception modules from the arbitrary module of the modules and stores the packets and/or messages, and the modules search the message queue and obtain the packets and/or messages having the types corresponding to each module ([0072] and [0075], disclosure of routing engine of system querying the queues of control and device adapters).

For claim 4, Breh discloses the system of claim 2, comprising a plurality of message queues which are transmission paths of the whole packets and/or messages, wherein the arbitrary module of the modules stores packets and/or messages having message types corresponding to reception modules in the message queues of the reception modules, and the reception modules search their message queues and obtain the packets and/or messages having the message types ([0072] and [0075], disclosure of routing engine of system querying the queues of control and device adapters).

For claim 5, Breh discloses the system of claim 3 or 4, wherein the message queue deletes the packets and/or messages obtained by the modules (It is inherent that system deletes messages from queue after they have been accessed.).

For claim 6, Breh discloses the system of claim 3 or 4, wherein the message transmitted to the message queue to be transmitted between the service management module and the transmission handling module comprises the message type, an auxiliary factor and a first type of message ([0072], disclosure of message queues for control adapters of system; thereafter, the router sends the message retrieved from control adapter queue to the appropriate device adapters).

For claim 7, Breh discloses the system of claim 6, wherein, when the message comprises a control command from the service management module to the transmission handling module, the auxiliary factor comprises an ID code of the home appliance and a packet type ([0072], disclosure of control adapter encoding into message the address of device adapter slated for receipt of message).

For claim 11, Breh discloses the system of claim 1, wherein the connection handling module provides a message ID code to the received second type of extension message ([0061] and [0072], inherent in disclosure that control adapter formats message into manner having codes distinguishing type of message).

For claim 12, Breh discloses the system of claim 11, wherein the connection handling module provides an intrinsic number in at least one of a login/logout process and a file download process with the client device [0067], disclosure that home network appliance may be updated from external sources.

For claim 13, Breh discloses the system of claim 1, wherein the second type of extension message comprises an ID code of the client device, a message code and the second type of message ([0072], disclosure of router reading out address information from control adapter packets).

For claim 14, Breh discloses the system of claim 13, wherein the connection handling module reads the message code and the second type of message from the second type of extension message, and transmits the code and message to the service management module ([0072], disclosure of router reading out address information from control adapter packets).

For claim 15, Breh discloses the system of claim 1, comprising at least one communication control protocol port communicating with the connection handling module for communication with the client device ([Fig. 2; [0060]]).

For claim 16, Breh discloses the system of claim 15, wherein the communication control protocol port comprises at least TCP port [0058], disclosure of system employing internet as connection means).

For claim 17, Breh discloses the system of claim 16, comprising at least a port for communication with a remote control server among the client devices, and a port for communication with the other client devices ([Fig. 2; [0060]]).

For claim 18, Breh discloses the system of claim 1, wherein the transmission handling module comprises a sending handling module for generating a first type of packet by using the first type of message and the auxiliary factor from the service management module, and sending the packet to the channel handling module ([0061] and [0063]).

For claim 22, Breh discloses the system of claim 1, wherein, when the home appliances receiving a plurality of first type of messages converted from a plurality of second type of messages are identical, the service management module ends one cycle for one first type of message and transmits the succeeding first type of message to the transmission handling module, and when the home appliances are different, the service management module consecutively transmits the first type of messages to the transmission handling module ([0066]).

For claim 26, Breh discloses the system of claim 1, further comprising a log file handling module for storing the first type of packet transmitted/received through the channel handling module ([0068], disclosure of routing engine querying information stored in control and device adapters).

For claim 27, Breh discloses the system of claim 1, further comprising a network database handling module for storing a state and information of the home appliance ([0085-86] and [0092-93], disclosure of devices sending event updates to system).

For claim 28, Breh discloses the system of claim 1, further comprising a log file handling module for storing the second type of extension message transmitted/received through the connection handling module ([0068], disclosure of routing engine querying information stored in control and device adapters).

For claim 29, Breh discloses the system of claim 1, wherein the first type and the second type are living network control protocols ([0056], disclosure of network server and appliances being network. Inherent devices communicate via protocol suitable for this application).

For claim 30, Breh discloses the system of claim 29, wherein the first type is living network control protocol a ([0056], disclosure of network server and appliances being network. Inherent devices communicate via protocol suitable for this application)..

For claim 31, Breh discloses the system of claim 29, wherein the second type is living network control protocol b ([0056], disclosure of network server and appliances being network. Inherent devices communicate via protocol suitable for this application)..

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 8 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breh, in view of Pathakis et al., US 5,946,467 (hereinafter Pathakis).

For claim 8, Breh discloses the system of claim 7, wherein, when the message comprises a response from the transmission handling module to the service management module, the auxiliary factor comprises an ID code of the home appliance ([0075])

Breh does not explicitly disclose the system's auxiliary factor including "a reception error code".

However, Pathakis discloses a system that transfers packets of information between network nodes, wherein the packets contain a number of flags, including a CRC verification flag (col. 6, lines 33-47). Breh and Pathakis are analogous art because both are from the field of endeavor of exchanging packets of data between nodes on a network.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the home networking system of Breh to include Pathakis' ability to verify the error-free receipt of packets, because this modification allows for a home network system to know whether packets sent and transmitted throughout the network made it to their destinations without error.

For claim 21, the combination of Breh and Pathakis discloses the system of claim 1 or 18, wherein the transmission handling module comprises a reception handling module for separating an error check field and a first type of message from the first type of packet from the channel handling module, and transmitting the field and message to the service management module (Pathakis, col. 6, lines 33-47).

11. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breh, in view of Pathakis, and further in view of Cunningham et al., US 7,174,386 (hereinafter Cunningham).

For claim 9, Breh discloses the system of claim 6, wherein, when the message comprises a control command from the transmission handling module to the service management module, the auxiliary factor comprises an ID code of the home appliance, a packet type ([0075])

Breh does not explicitly disclose the system's auxiliary factor including "a reception error code and a duplicate reception flag".

However, Pathakis discloses a system that transfers packets of information between network nodes, wherein the packets contain a number of flags, including a CRC verification flag (col. 6, lines 33-47). Breh and Pathakis are analogous art because both are from the field of endeavor of exchanging packets of data between nodes on a network. The rationale for combination of Breh and Pathakis is provided in rejection to claim 8.

The combination of Breh and Pathakis does not disclose “a duplicate reception flag”.

However, Cunningham discloses a networking system that maintains count of the number of retransmissions of packets received (col. 8, lines 4-30). Breh, Pathakis and Cunningham are analogous art because all are from the field of endeavor of exchanging packets of data between nodes on a network.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combination of Breh and Pathakis to include the retransmission counter as taught by Cunningham because this modification allows for a home network system to know whether multiple requests for a system operation have been received.

For claim 10, the combination of Breh, Pathakis and Cunningham discloses the system of claim 9, wherein, when the message comprises a response from the service management module to the transmission handling module, the auxiliary factor comprises an ID code of the home appliance and a packet type (Breh, [0072]).



12. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breh, in view of Kagan et al., US 20020152315 (hereinafter Kagan).

For claim 19, Breh fails to explicitly disclose when the sending handling module does not receive a response packet to the first type of packet, the sending handling module retransmits the packet.

However, Kagan a networking system that teaches message retransmission when a destination node does not send an acknowledgement reply ([0014]). Breh and Kagan are analogous arts from the field of networked packet communication between network nodes.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Breh to include the retransmission of messages as taught by Kagan because this modification allows for a home network system to ensure proper transmission and receipt of network messages.

For claim 20, the combination of Breh and Kagan discloses the system of claim 19, wherein, while the sending handling module waits for the response packet, the sending handling module processes the first type of message from the service management module (Breh, [0074], disclosure of asynchronous operation).

13. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breh, in view of Hunnicutt et al., US 5,889,952 (hereinafter Hunnicutt).

For claim 23, Breh fails to explicitly disclose wherein the service management module further comprises a message blocking module for processing the received first type of message.

However, Hunnicutt discloses a networking system that teaches permission based access to network resources (col. 8, lines 26-60). Breh and Hunnicutt are analogous arts from the field of client/server based networked communication between network nodes.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Breh to include the access permissions system as taught by Hunnicutt because this modification allows for a network system which employs restrictions on access to network resources.

For claim 24, the combination of Breh and Hunnicutt discloses the system of claim 23, wherein the message blocking module comprises a sending message hooking module for processing the converted first type of message from the connection handling module according to the home appliance to be controlled and a control command (Hunnicutt, col. 8, lines 26-60).

For claim 25, the combination of Breh and Hunnicutt discloses the system of claim 23, wherein the message blocking module further comprises a reception message hooking

module for processing the first type of message from the transmission handling module according to the home appliance (Hunnicut, col. 8, lines 26-60).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clayton R. Williams whose telephone number is 571-270-3801. The examiner can normally be reached on M-F (8 a.m. - 5 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/558,430  
Art Unit: 2157

Page 19

/Ario Etienne/  
Supervisory Patent Examiner, Art Unit 2157